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CLARK, MAXWELL A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/821,181	FORTMAN, PETER A.	
	Examiner	Art Unit	
	MAXWELL A. CLARK	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *28-55* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-55* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

2. Applicant's arguments with respect to claims 28-56 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 50-55 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Determining a fault in an interface of the gateway was not described in the specification in such a way as to reasonably convey

to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 28-30, 34-39, 50-52 and 54 are rejected under 35 U.S.C. 102(e) as being anticipated by Kiuchi et al. (US 6,882,653 B1).

Regarding claim 28, Kiuchi discloses establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device), determining, at the gateway, diagnostic information

associated with a fault in the second communications session (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to determining, at the gateway, diagnostic information associated with a fault in the second communications session), generating, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service and alleviating, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session without human intervention (col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be

described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with generating, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service and alleviating, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session without human intervention).

Regarding claim 29, Kiuchi discloses alleviating the fault in the second communications session without human intervention comprises resolving the fault in the second communications session without human intervention (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform alternative routing, i.e. without human intervention, which corresponds to alleviating the fault in the second communications session without human intervention comprises resolving the fault in the second communications session without human intervention.

Regarding claim 30, Kiuchi discloses alleviating the fault in the second communications session without human intervention comprises circumventing the fault in the second communications session without human intervention (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform alternative routing, i.e. without human intervention, which corresponds to alleviating the fault in the second communications session without human intervention comprises circumventing the fault in the second communications session without human intervention).

Regarding claim 34, Kiuchi discloses a first communication session as a network session and the second communication session comprises an active modem session (col. 14, lines 22-26, wherein communication is established between the user 150 and the ISP network (S1022); and connection is established between the user 150 and the ISP and the other gateway systems through the controller 2 and primary signal processor 2 corresponds to a first communication session as a network session and the second communication session comprises an active modem session).

Regarding claim 35, Kiuchi discloses a first communications path between a gateway and an online service, a second communications path between the gateway and a user device that differs from the first communications path (col. 5, lines 2-6,

wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to a first communications path between a gateway and an online service, a second communications path between the gateway and a user device that differs from the first communications path), the gateway configured to determine diagnostic information associated with a fault in a communications session on the second communications path, the gateway configured to generate a message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path, the gateway configured to communicate to the online service, on the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the communications session on the second communications path (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to the gateway configured to determine diagnostic information associated with a fault in a

communications session on the second communications path, the gateway configured to generate a message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path, the gateway configured to communicate to the online service, on the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the communications session on the second communications path) and the online service configured to alleviate, in response to communication of the diagnostic information associated with the fault in the communications session on the second communications path, the fault in the communications session on the second communications path without human intervention (col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with the online service configured to alleviate, in response to communication of the diagnostic information associated with the fault in the communications session on the second communications path, the fault in the communications session on the second communications path without human intervention).

Regarding claim 36, Kiuchi discloses the gateway comprises an access concentrator (col. 2, lines 9-10, wherein a telephone network and an IP network interconnected through a gateway system corresponds to a gateway comprising an access concentrator).

Regarding claim 37, Kiuchi discloses the gateway comprises an access multiplexer (col. 2, lines 9-10, wherein a telephone network and an IP network interconnected through a gateway system corresponds to a gateway comprising an access multiplexer).

Regarding claim 38, Kiuchi discloses resolving the fault in the communications session on the second communications path without human intervention (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform alternative routing, i.e. without human intervention, which corresponds to resolving the fault in the communications session on the second communications path without human intervention).

Regarding claim 39, Kiuchi discloses circumventing the fault in the communications session on the second communications path without human intervention (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of

disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform alternative routing, i.e. without human intervention, which corresponds to circumventing the fault in the communications session on the second communications path without human intervention).

Regarding claim 50, Kiuchi discloses establishing a first communications session on a first communications path between a gateway and an online service establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a first user device, establishing a third communications session that differs from the first communications session and the second communications session on a third communications path that differs from the first communications path and the second communications path between the gateway and a second user device (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to establishing a first communications session on a first communications path between a gateway and an online service establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a first user device; establishing a third communications session that differs from the first communications session and the second communications session on a third communications path that

differs from the first communications path and the second communications path between the gateway and a second user device), determining, at the gateway, diagnostic information associated with a fault in the second communications session determining, at the gateway, diagnostic information associated with a fault in the third communications session, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the third communications session to the online service (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to determining, at the gateway, diagnostic information associated with a fault in the second communications session determining, at the gateway, diagnostic information associated with a fault in the third communications session, communicating, in the first communications path between the

gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the third communications session to the online service) and determining, based on the communication of the diagnostic information associated with the fault in the second communications session and the communication of the diagnostic information associated with the fault in the third communications session, a fault in an interface of the gateway ((col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with determining, based on the communication of the diagnostic information associated with the fault in the second communications session and the communication of the diagnostic information associated with the fault in the third communications session, a fault in an interface of the gateway).

Regarding claim 51, Kiuchi discloses the fault in the interface of the gateway comprises a fault in a common communication path shared between the second communications path and the third communications path (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a

fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602). In the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604) and if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected which corresponds to the fault in the interface of the gateway comprises a fault in a common communication path shared between the second communications path and the third communications path).

Regarding claim 52, Kiuchi discloses alleviating, in response to determination of the fault in the interface of the gateway, the fault in the fault in the interface of the gateway (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform alternative routing, i.e. without human intervention, which corresponds to alleviating, in response to determination of the fault in the interface of the gateway, the fault in the fault in the interface of the gateway).

Regarding claim 54, Kiuchi discloses a first communications path between a gateway and an online service, a second communications path that differs from the first

communications path between the gateway and a first user device, a third communications path that differs from the first communications path and the second communications path between the gateway and a second user device (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to a first communications path between a gateway and an online service, a second communications path that differs from the first communications path between the gateway and a first user device, a third communications path that differs from the first communications path and the second communications path between the gateway and a second user device), the gateway configured to determine diagnostic information associated with a fault in a communications session on the second communications path, the gateway configured to determine diagnostic information associated with a fault in a communications session on the third communications path, the gateway configured to communicate to the online service, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the communications session on the second communications path, the gateway configured to communicate to the online service, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the communications session on the third communications path (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or

(6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to the gateway configured to determine diagnostic information associated with a fault in a communications session on the second communications path, the gateway configured to determine diagnostic information associated with a fault in a communications session on the third communications path, the gateway configured to communicate to the online service, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the communications session on the second communications path, the gateway configured to communicate to the online service, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the communications session on the third communications path) and the online service configured to determine, based on the communication of the diagnostic information associated with the fault in the communications session on the second communications path and the communication of the diagnostic information associated with the fault in the communications session on the third communications path, a fault in an interface of the gateway (col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to

another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with the online service configured to determine, based on the communication of the diagnostic information associated with the fault in the communications session on the second communications path and the communication of the diagnostic information associated with the fault in the communications session on the third communications path, a fault in an interface of the gateway).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiuchi et al. (US 6,882,653 B1) in view of Oguchi et al. (US 2002/0067725 A1).

Regarding claim 31, Kiuchi discloses establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device), determining, at the gateway, diagnostic information associated with a fault in the second communications session (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the

same lines until the recovery from the fault is detected (S607) which corresponds to determining, at the gateway, diagnostic information associated with a fault in the second communications session), generating, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service and alleviating, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session without human intervention (col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with generating, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service and alleviating, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session

without human intervention). Kiuchi does not expressly disclose generating the message configured to enable communication of the diagnostic information comprises generating a tunneling protocol message configured to enable communication of the diagnostic information. Oguchi discloses a L2TP (layer two tunneling protocol) tunnel and an IPsec (IP security protocol) tunnel generally used as the IP tunnel which is a tunneling technique other than the MPLS tunnel, ¶0073. It would have been obvious to one of ordinary skill in the art at the time of the application to disclose generating the message configured to enable communication of the diagnostic information comprises generating a tunneling protocol message configured to enable communication of the diagnostic information so that the communication of the diagnostic information is secure.

Regarding claim 32, Oguchi discloses generating the tunneling protocol message configured to enable communication of the diagnostic information comprises customizing a tunneling protocol message configured to enable communication of the diagnostic information (¶0074, wherein the packet of the general L2TP tunnel has a format shown in FIG. 25. When the packet consisting of the IP header, a TCP/UDP header, and application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation and the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header, and the like as well as the IP header and the UDP header are also added which corresponds to generating the tunneling protocol message configured to

enable communication of the diagnostic information comprises customizing a tunneling protocol message configured to enable communication of the diagnostic information).

Regarding claim 33, Oguchi discloses generating diagnostic information message of a tunneling protocol configured to enable communication of the diagnostic information (¶0074, wherein the packet of the general L2TP tunnel has a format shown in FIG. 25. When the packet consisting of the IP header, a TCP/UDP header, and application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation and the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header, and the like as well as the IP header and the UDP header are also added which corresponds to generating diagnostic information message of a tunneling protocol configured to enable communication of the diagnostic information).

Claims 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiuchi et al. (US 6,882,653 B1) in view of Oguchi et al. (US 2002/0067725 A1).

Regarding claim 40, Kiuchi discloses a first communications path between a gateway and an online service, a second communications path between the gateway and a user device that differs from the first communications path (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to a first communications path between a gateway and an online service, a second communications path between the gateway and a user device that differs from the first communications path), the gateway configured to determine diagnostic information

associated with a fault in a communications session on the second communications path, the gateway configured to generate a message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path, the gateway configured to communicate to the online service, on the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the communications session on the second communications path (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to the gateway configured to determine diagnostic information associated with a fault in a communications session on the second communications path, the gateway configured to generate a message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path, the gateway configured to communicate to the online service, on the first communications path between the gateway and the online service, the

diagnostic information associated with the fault in the communications session on the second communications path) and the online service configured to alleviate, in response to communication of the diagnostic information associated with the fault in the communications session on the second communications path, the fault in the communications session on the second communications path without human intervention (col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with the online service configured to alleviate, in response to communication of the diagnostic information associated with the fault in the communications session on the second communications path, the fault in the communications session on the second communications path without human intervention). Kiuchi does not expressly disclose a tunneling protocol message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path. Oguchi discloses a L2TP (layer two tunneling protocol) tunnel and an IPsec (IP security protocol) tunnel generally used as the IP tunnel which is a tunneling technique other than the MPLS tunnel, ¶0073. It would have been obvious to one of ordinary skill in the art at the time of the application to disclose a tunneling protocol message configured to

enable communication of the diagnostic information associated with the fault in the communications session on the second communications path in Kiuchi so that the diagnostic information is secured.

Regarding claim 41, Oguchi discloses a tunneling protocol message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path (¶0073-¶0074, wherein the L2TP (layer two tunneling protocol) tunnel and an IPsec (IP security protocol) tunnel are generally used as the IP tunnel which is a tunneling technique other than the MPLS tunnel and a packet of the general L2TP tunnel has a format shown in FIG. 25 and when the packet consisting of the IP header, a TCP/UDP header, and application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation, when the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header, and the like as well as the IP header and the UDP header are also added which corresponds to a tunneling protocol message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path).

Regarding claim 42, Oguchi discloses a diagnostic information message of a tunneling protocol configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path (¶0073-¶0074, wherein the L2TP (layer two tunneling protocol) tunnel and an IPsec (IP security protocol) tunnel are generally used as the IP tunnel which is a

tunneling technique other than the MPLS tunnel and a packet of the general L2TP tunnel has a format shown in FIG. 25 and when the packet consisting of the IP header, a TCP/UDP header, and application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation, when the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header, and the like as well as the IP header and the UDP header are also added which corresponds to a diagnostic information message of a tunneling protocol configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path).

Regarding claim 43, Oguchi discloses a layer 2 tunnel protocol message configured to enable communication of the diagnostic information associated with the fault in the communications session on the second communications path (¶0073-¶0074, wherein the L2TP (layer two tunneling protocol) tunnel and an IPsec (IP security protocol) tunnel are generally used as the IP tunnel which is a tunneling technique other than the MPLS tunnel and a packet of the general L2TP tunnel has a format shown in FIG. 25 and when the packet consisting of the IP header, a TCP/UDP header, and application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation, when the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header, and the like as well as the IP header and the UDP header are also added which corresponds to a layer 2 tunnel protocol message configured to enable

communication of the diagnostic information associated with the fault in the communications session on the second communications path).

Claims 44-46, 55 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiuchi et al. (US 6,882,653 B1).

Regarding claim 44, Kiuchi discloses establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device), determine, at the gateway, diagnostic information associated with a fault in the second communications session, generate, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a

network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to determining at the gateway, diagnostic information associated with a fault in the second communications session, generate, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service) and alleviate, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session without human intervention (col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors

(S610) which corresponds with alleviating, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session without human intervention). Kiuchi does not expressly disclose a tangible computer-readable medium having embodied thereon a computer program configured to communicate diagnostic information, the computer program comprising one or more code segments to execute the above. Kiuchi does disclose The telephone network 101 and the controllers 110-a and 110-b are connected through a signal channel (D-channel) of a user/network interface of an ISDN or a common channel signaling #7 of an internetwork connection interface, and the telephone network 101 and the primary signal processors 120a, 120b, 110-b are connected through the B-channel, H0-channel and H1-channel of the ISDN or a line interface such as an SDH (Synchronous Digital Hierarchy), 2M TTC, T1 or E1 and control signals from the telephone network 101 cause the controllers 110-a and 110-b to perform a control process of call processing signals, and the call control processing at the primary signal processors 120-a, 120-b and 110-b. It would have been obvious to one of ordinary skill in the art at the time of the application to use a computer readable medium having embodied thereon a computer program comprising one or more code segments in both the controllers and signal processors discloses by Kiuchi for the purpose of providing necessary operational instructions, such as one or more code segments, and provide storage of the instruction in a memory, such as a computer readable medium.

Regarding claim 45, Kiuchi discloses alleviating the fault in the second communications session without human intervention comprise one or more code segments that, when executed, cause the computer to resolve the fault in the second communications session without human intervention (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform alternative routing, i.e. without human intervention, which corresponds to alleviating the fault in the second communications session without human intervention comprise one or more code segments that, when executed, cause the computer to resolve the fault in the second communications session without human intervention).

Regarding claim 46, Kiuchi discloses alleviating the fault in the second communications session without human intervention comprise one or more code segments that, when executed, cause the computer to circumvent the fault in the second communications session without human intervention (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform

alternative routing, i.e. without human intervention, which corresponds to alleviating the fault in the second communications session without human intervention comprise one or more code segments that, when executed, cause the computer to circumvent the fault in the second communications session without human intervention).

Claims 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiuchi et al. (US 6,882,653 B1) in view of Oguchi et al. (US 2002/0067725 A1).

Regarding claim 47, Kiuchi discloses establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a user device), determine, at the gateway, diagnostic information associated with a fault in the second communications session, generate, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the

online service (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to determining at the gateway, diagnostic information associated with a fault in the second communications session, generate, at the gateway, a message configured to enable communication of the diagnostic information associated with the fault in the second communications session, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service) and alleviate, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session without human intervention (col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be

described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with alleviating, in response to communication of the diagnostic information associated with the fault in the second communications session, the fault in the second communications session without human intervention). Kiuchi does not expressly disclose generating a tunneling protocol message configured to enable communication of the diagnostic information. Oguchi discloses a L2TP (layer two tunneling protocol) tunnel and an IPsec (IP security protocol) tunnel generally used as the IP tunnel which is a tunneling technique other than the MPLS tunnel, ¶0073. It would have been obvious to one of ordinary skill in the art at the time of the application to disclose a L2TP (layer two tunneling protocol) tunnel in Kiuchi, as in Oguchi, for to be generally used as the IP tunnel which is a tunneling technique other than the MPLS tunnel.

Regarding claim 48, Oguchi discloses customizing a tunneling protocol message configured to enable communication of the diagnostic information (¶0074, wherein the packet of the general L2TP tunnel has a format shown in FIG. 25 and when the packet consisting of the IP header, a TCP/UDP header, and application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation, when the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header, and the like as well as the IP header and the UDP header are also added which corresponds to

customizing a tunneling protocol message configured to enable communication of the diagnostic information).

Regarding claim 49, Oguchi discloses generating a diagnostic information message of a tunneling protocol configured to enable communication of the diagnostic information (¶0074, wherein the packet of the general L2TP tunnel has a format shown in FIG. 25 and when the packet consisting of the IP header, a TCP/UDP header, and application data is transmitted through an L2TP tunnel, an L2TP header and a PPP header are added thereto associated with an encapsulation, when the edge router transmits the encapsulated packet to the provider network, a lower layer media PPP/Ether header, and the like as well as the IP header and the UDP header are also added which corresponds to generating a diagnostic information message of a tunneling protocol configured to enable communication of the diagnostic information).

Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kiuchi et al. (US 6,882,653 B1) in view of Oguchi et al. (US 2002/0067725 A1).

Regarding claim 53, Kiuchi discloses establishing a first communications session on a first communications path between a gateway and an online service establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a first user device, establishing a third communications session that differs from the first communications session and the second communications session on a third communications path that differs from the first communications path and the second communications path between the gateway and a second user device (col. 5,

lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to establishing a first communications session on a first communications path between a gateway and an online service establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a first user device; establishing a third communications session that differs from the first communications session and the second communications session on a third communications path that differs from the first communications path and the second communications path between the gateway and a second user device), determining, at the gateway, diagnostic information associated with a fault in the second communications session determining, at the gateway, diagnostic information associated with a fault in the third communications session, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the third communications session to the online service (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of detection of the fault was the time of occurrence of the fault

(S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to determining, at the gateway, diagnostic information associated with a fault in the second communications session determining, at the gateway, diagnostic information associated with a fault in the third communications session, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service, communicating, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the third communications session to the online service) and determining, based on the communication of the diagnostic information associated with the fault in the second communications session and the communication of the diagnostic information associated with the fault in the third communications session, a fault in an interface of the gateway ((col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors (S610) which corresponds with determining, based on the

communication of the diagnostic information associated with the fault in the second communications session and the communication of the diagnostic information associated with the fault in the third communications session, a fault in an interface of the gateway). Kiuchi does not expressly disclose generating, at the gateway, a tunneling protocol message configured to enable communication of the diagnostic information associated with the fault in the second communications session and the diagnostic information associated with the fault in the third communications session. Oguchi discloses a L2TP (layer two tunneling protocol) tunnel and an IPsec (IP security protocol) tunnel generally used as the IP tunnel which is a tunneling technique other than the MPLS tunnel, ¶0073. It would have been obvious to one of ordinary skill in the art at the time of the application to disclose a tunneling protocol message configured to enable communication of the diagnostic information associated with the fault in the second communications session and the diagnostic information associated with the fault in the third communications session in Kiuchi for the purpose of providing a secured transmissions.

Regarding claim 55, Kiuchi discloses establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a first user device, establish a third communications session that differs from the first communications session and the second communications session on a third communications path that differs from the first communications path and the

second communications path between the gateway and a second user device (col. 5, lines 2-6, wherein the internetwork connection between a telephone network 101 and an IP network 102 is established through a gateway system 103 corresponds to establishing a first communications session on a first communications path between a gateway and an online service, establishing a second communications session that differs from the first communications session on a second communications path that differs from the first communications path between the gateway and a first user device, establish a third communications session that differs from the first communications session and the second communications session on a third communications path that differs from the first communications path and the second communications path between the gateway and a second user device), determine, at the gateway, diagnostic information associated with a fault in the second communications session, determine, at the gateway, diagnostic information associated with a fault in the third communications session, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the third communications session to the online service (col. 7, lines 27-39, wherein when the gateway system detects a fault in the IP network or receives a notification of a fault from the servers 130 including a network manager (S601), it determines the location where the fault was detected (S602), in the case (1), (2), (3) or (6) (S603), it further determines the time of detection of the fault (S604), if the time of

detection of the fault was the time of occurrence of the fault (S605), the gateway system determines that communication through the relevant controller 110 or primary signal processor has been disabled, and the controller instructs the telephone network to block the lines contained in the controller and primary signal processor (S606) to block the same lines until the recovery from the fault is detected (S607) which corresponds to determining, at the gateway, diagnostic information associated with a fault in the second communications session, determine, at the gateway, diagnostic information associated with a fault in the third communications session, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the second communications session to the online service, communicate, in the first communications path between the gateway and the online service, the diagnostic information associated with the fault in the third communications session to the online service) and determine, based on the communication of the diagnostic information associated with the fault in the second communications session and the communication of the diagnostic information associated with the fault in the third communications session, a fault in an interface of the gateway ((col. 7, lines 40-48, wherein when the fault is detected at the time of access from the telephone network (S608), the gateway system instructs the telephone network to use alternative lines to another controller and primary signal processor which are operating properly using an alternative routing instructing method 2 or 3 to be described later each time an access error occurs for an incoming call from the telephone network (S609) and thereafter measures the frequency of access errors

(S610) which corresponds with determining, based on the communication of the diagnostic information associated with the fault in the second communications session and the communication of the diagnostic information associated with the fault in the third communications session, a fault in an interface of the gateway). Kiuchi does not expressly disclose a tangible computer-readable medium having embodied thereon a computer program configured to communicate diagnostic information, the computer program comprising one or more code segments to execute the above. Kiuchi does disclose The telephone network 101 and the controllers 110-a and 110-b are connected through a signal channel (D-channel) of a user/network interface of an ISDN or a common channel signaling #7 of an internetwork connection interface, and the telephone network 101 and the primary signal processors 120a, 120b, 110-b are connected through the B-channel, H0-channel and H1-channel of the ISDN or a line interface such as an SDH (Synchronous Digital Hierarchy), 2M TTC, T1 or E1 and control signals from the telephone network 101 cause the controllers 110-a and 110-b to perform a control process of call processing signals, and the call control processing at the primary signal processors 120-a, 120-b and 110-b. It would have been obvious to one of ordinary skill in the art at the time of the application to use a computer readable medium having embodied thereon a computer program comprising one or more code segments in both the controllers and signal processors discloses by Kiuchi for the purpose of providing necessary operational instructions, such as one or more code segments, and provide storage of the instruction in a memory, such as a computer readable medium.

Regarding claim 56, the method of claim 28 wherein alleviating the fault in the second communications session without human intervention comprises alleviating the fault in the second communications session without notification of the fault in the second communications session (col. 9, lines 27-42, wherein detecting a fault in the case 2 is a method in which a fault is detected by the primary signal processor by receiving a notification of disabled delivery transmitted by the routing device in the IP network in response to an IP packet transmitted by the primary signal processor and in which the primary signal processor notifies the controller of the fact, then the controller instructs the telephone network to perform alternative routing, i.e. without human intervention, which corresponds to alleviating the fault in the second communications session without human intervention comprises alleviating the fault in the second communications session, examiner takes official notice that alleviating the fault in the second communications session occurs without notification of the fault in the second communications session, since the second communications session contains the fault therefore the ability to notify the fault in the second communications session would be impeded).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Baillargeon, Steve (US 20040052212 A1), Burke; John L. et al. (US 6996067 B1), Puppa, Gary J. et al. (US 20030112760 A1), Dhingra; Anurag (US 7167912 B1), Cuellar; Jorge et al. (US 6980796 B1), Hassell; Suzanne et al. (US 6269149 B1), Gale, Alan et al. (US 20030110409 A1).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MAXWELL A. CLARK whose telephone number is (571) 270-1956. The examiner can normally be reached on Monday through Thursday 7:30A.M. to 5P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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